Earth Science Operating Missions
2011 Senior Review Kickoff
Mission Team Q&A

December 15, 2010

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Senior Review Objective

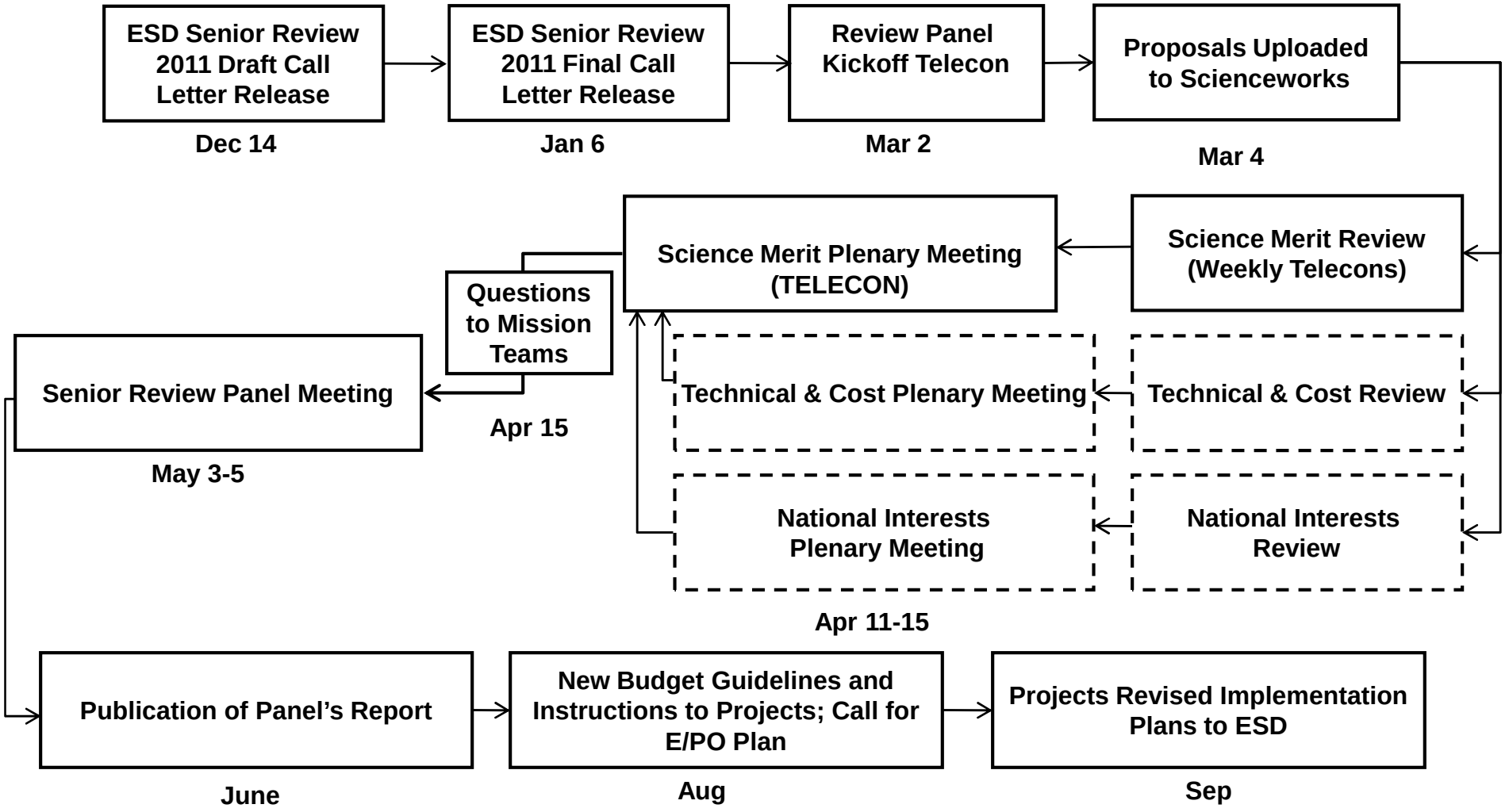
- Maximize science utility & contribution to National goals, within available resources.
- The ESD Senior Review explicitly acknowledges
  - the importance of long term data sets and overall data continuity for Earth science research;
  - the direct contributions of mission data to national objectives, such as the routine use of near-real-time products from NASA research missions for applied and operational purposes by U.S. public or private organizations

	FY12	FY13	FY14	FY15
All Missions	$133,957	$135,885	$ 136,960	$ 132,286

Senior Review Schedule

- Schedule
  - Draft Call Letter — Dec 14
  - Mission Scientist Pre-Proposal Briefing — Dec 15
  - **Final Call Letter** — **Jan 6**
  - Panel Selection — Feb 18
  - **Proposals Due** — **Mar 4**
  - National Interests and Tech&Cost Panels — Apr 11-15
  - Science Panel (Telecon) — Apr 15
  - **Panel Questions to Mission Teams** — **April 18**
  - **Science Panel (Mission Presentations)** — **May 3-5**
  - Senior Review Findings and Recommendations — May 13
  - PPBE2013/Senior Review Budget Decisions — May – Jul
  - Program Scientist Review & E/PO Call — July
  - Results to ESD Steering Committee — ~Aug 1
  - Guidance Letters to Missions — ~Aug 1
  - Mission Response — ~Sep 1

ESD Senior Review 2011 Flow



Process Improvement – 2009 Lessons Learned

- **What went right**
  - Focus on core mission
  - Assignment of proposal leads/review team; assured that all proposals were comprehensively reviewed by at least 3 panelists and all panelists had been briefed on strengths & weaknesses before the mission team presentations; excellent chairman
  - Pre-review telecon to develop questions for mission presentations
  - Subpanels very useful – science panel looked for their input. Participation of the subpanel chairs in science panel worked very well.
  - Chairmanship of National Interests panel by Applied Sciences & expansion of panel members to additional agencies, states, and non-governmental organizations.
- **What needs improvement**
  - Selection of the National Interests panel – couldn't get the attention of several organizations until the last minute.
  - Technical & Cost panel had both good & bad aspects – good to have technical experts, but cost models not particularly useful in this application. Better to apply the PPBE budget review model.
  - Program scientist involvement not clearly defined – program scientists weren't sure how to engage, and at what point.
  - Better upfront explanation to Science Panel of competed science vs. DA.

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Invitations will be sent from Dr. Freilich to a senior director at agency in addition to individual invitations.

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ESM & ESSP Program Offices Resources leads will conduct PPBE-style review

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•Pre-Review Steering Committee to establish priorities with ESD Management and Program Scientists, followed by frequent coordination between PE and PS.

•Program Scientists are a resource to their mission teams: Please consult with your Program Scientist for ESD priorities, presentation dry runs, clarifying the relationship between your DA activity & competed science programs, etc.

of panel

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Research Director to brief Science Panel at Evaluation Kickoff and again before mission presentations.

Review Panel Structure

- **Science Panel** (12-14 members)
  - Primary evaluation panel
  - Chaired by a 2009 panel member
  - All Science Focus Areas & ESD disciplines (e.g. cryosphere, oceans…) will be represented.
  - Members will be recognized experts from the Earth science community; diversity essential.
- **Technical and Cost Panel**
  - Co-chaired by LaRC SOMA (same organization which supports AO TMCO evaluations) & ESM Program Office/Resource Lead
  - Will brief findings to the Science Panel & deliver written report.
- **National Interests Panel**
  - Chaired by ESD Applied Sciences lead.
  - Seek input on applied & operational uses from
    - Civilian agencies: NOAA, USDA, FAA, DOI/USGS, EPA
    - Military/security: NRL, AFWRL, DHS, NRO, NGIA
    - States/NGO/Private Sector: ASPRS, Conservation International, National States Geographic Information Council, AIAA Remote Sensing Working Group
  - Will brief findings to the Science Panel & deliver written report.

Evaluation Criteria

- **Science:**
  - Scientific merit of the proposed returns;
  - Quality of the data products, value of long term data records and overall data continuity;
  - Factors: intrinsic value, relevance to ESD science goals, data product maturity;
  - Secondary criteria, based on input from the National Interests/Technical/Cost subpanels: cost efficiency and operational effectiveness.
- **Operational and non-research uses**:
  - Utility of the products for "applied and operational uses" that serve national interests, including: operational uses, public services, business and economic uses, military operations, government management, policy making, non-governmental organizations' uses, etc.
  - Evaluation factors: intrinsic value, frequency of use, latency.
- **Technical & Cost**:
  - Hardware status and performance, life expectancy.
  - Mission operations plans for health, safety and data collection.
  - Cost efficiency & realism.

ESD's priority for the Mission Teams for the 2011 Review

➢ *Quality datasets that support scientific use and research.*

2011 ESD Senior Review Missions – Funding Environment

- **Guideline Proposals Required**
  - If FY12-15 guidelines are changed by OMB or congressional action, mission teams will be notified and issued new guidelines immediately.
  - Assume Unified Labor Accounting, and ensure workforce budgets are complete & accurate.
- Optimal Proposals are not prohibited
  - If the mission team submits an optimal proposal, the PPBE2013 submit must include an overguide request.
  - Technical narrative must describe the discrete activity or item enabled by the additional funding, and the benefits of the additional work.

MISSION	FY12	FY13	FY14	FY15
AQUA	$ 31,259	$ 32,010	$ 32,622	$ 33,735
AURA	$ 28,329	$ 29,045	$ 29,064	$ 30,039
CALIPSO	$ 5,340	$ 5,487	$ 5,594	$ 5,713
CloudSat	$ 6,943	$ 7,119	$ 7,349	$ 7,526
EO-1	$ 2,173	$ 2,192	$ 1,538	$ 130
GRACE	$ 4,778	$ 4,896	$ 5,052	$ 5,174
Jason-1	$ 4,667	$ 4,781	$ 4,897	$ -
OSTM/Jason-2	$ 1,181	$ 1,191	$ 1,200	$ 1,200
QuikSCAT	$ 3,664	$ 3,775	$ 3,866	$ 2,252
SORCE	$ 4,600	$ 4,714	$ 4,893	$ 5,045
TERRA	$ 30,617	$ 31,344	$ 31,346	$ 31,754
TRMM	$ 9,017	$ 9,331	$ 9,539	$ 9,717
All Missions	**$ 133,957**	**$ 135,885**	**$ 136,960**	**$ 132,286**

Totals exclude Civil servant labor dollars

- Pool of funds available is the sum of all the missions' MO&DA.
- Last year's Augmentation has been allocated; no 'extra' funds available.
- New congressional House Science & Technology chairman may be hostile to Earth Science.

Call Letter Outline

- Objectives
- Panels
- Review Criteria/Instructions to the Panel
- Extended Mission Scope (inc. definition of standard data products)
- Funding Environment
- Instructions to Proposers (Science Section, Technical/Budget Section)
- Required Appendices & Attachments
- Proposal Submission
- Panel meetings
- Presentations to Panel
- After Panel Meets
- Schedule
- Further Information & Attachments (e.g. WBS dictionary, budget template)

Changes since the 2009 Review

- More explicit emphasis on standard data products
- Cost evaluation by a NASA Resources Analyst Team
- Science Section to address 4 subtopics:
  - Science Merit
  - Data Products
  - Applied & Operational Uses (new)
  - Programmatic elements (organization, management, partnerships, etc.)
- Efficiency metrics updates to be submitted as part of response (if still required by OMB).

Requested Feedback

- Are the evaluation criteria clear?
- Where is more clarity needed in the Call Letter?
- Suggestions for additional process improvements?
- QUESTIONS & COMMENTS

For More Information & Comments:
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